APPENDIX I

TARGET RATE ANALYSIS FOR WATER, WASTEWATER AND SOLID WASTE PROJECTS

DIRECTIONS FOR APPLICANTS: Because of **the importance of "target rate analysis"** in the ranking of CDBG applications for water, wastewater and solid waste projects, applicants should **contact CDBG staff to ensure that the applicant is using the correct target rate in their financial analysis of the project. Grant funding will not be recommended for projects that would result in user charges below the target rate.**

County water and sewer districts, projects that will benefit only a small defined area of a city or town, tribal governments, and communities that have undergone dramatic demographic or economic changes since the 2000 Census, should read the notes on pages *I-6* and *I-7* below.

"Target rate analysis" is a key part of the financial assessment for water, wastewater and solid waste projects. It is used by MDOC to help determine the amount of grant funds a community needs to keep its user rates, resulting from a proposed improvement to a water, wastewater, or solid waste project, **at a reasonably affordable level for its citizens relative to other communities.**

The idea of "target rates" is based on the concept that the ability of a community, as a whole, to pay a particular user rate is related to the overall median household income level in the community, and that communities with higher median household incomes can afford higher rates than those with lower median household incomes. MDOC conducts a survey of user rates charged by selected water, wastewater, and solid waste systems around Montana every ten years, when new U.S. Census data is available, for the purpose of computing new "target percentages."

The target percentage is multiplied times a community's median household income (MHI) in order to compute its target rate. The systems selected for the survey are typically those that have had improvements made in recent years, are currently operating in compliance with state and federal regulations, and are charging user fees that adequately support the cost of operating the system. The systems' average user rates are compared to the communities' MHI obtained from the new Census data. The resulting ratios from these surveyed systems are averaged and the target percentage computed, which is then used to compute target rates for ten years until new Census data is available.

MDOC utilizes the combined rates for both water and wastewater systems in its target rate analysis. This helps to ensure that an applicant's need for financial assistance is not understated if either of the systems have high rates, even though the other system may have relatively low rates. For communities with only a water system, or a wastewater system, but not both, only the target rate for that system will be used. Storm drain projects are computed as if it were a part of the wastewater system. Target rate analysis of solid waste systems will consider rates for that service alone.

A community's target rate is computed by multiplying the community's MHI by the combined target percentage (2.3%) to measure residential households' ability to pay combined water and wastewater rates (1.4% for water systems plus .9% for wastewater systems equals 2.3%). For communities with only one system, 1.4% will be used for water systems and 0.9% will be used for wastewater systems. A community's target rate for a solid waste system is computed by multiplying the community's MHI by the target percentage (0.3%) to measure residential households ability to pay solid waste rates.

Note that the target percentage for <u>wastewater</u> systems has increased from 0.8% to 0.9% and the <u>combined</u> target percentage has increased from 2.2% to 2.3%.

For example:

- If a community had an annual MHI of $30,000, this figure is multiplied by 2.3% and then multiplied by 90%. The sum is then divided by twelve months to determine the community's combined monthly target rate (for water and wastewater) of $51.75 per month ($30,000 x 2.3% x 90% = $621 divided by 12 months = $51.75 per month).
- If a community only has a water system and no wastewater system, the target rate would be $31.50 per month ($30,000 x 1.4% x 90% = $378 divided by 12 months).
- If a community only has a wastewater system and no water system, the target rate would be $20.25 per month ($30,000 x .9% x 90% = $243 divided by 12 months).

Over the last ten years, MDOC has multiplied the community's target percentage times 90% (the "multiplier") for comparison against actual user rates, for the purpose of conducting the CDBG financial analysis. This has been done because of the potential inaccuracies of the methodology, and it provides applicants with some remaining capacity to meet future emergencies or facility needs that may be unknown at this time. However, the MHI figures taken from the decennial census data, upon which target rates are computed, become less accurate over time. As a result of target rates being adjusted only once, every ten years, the target rate that is used for the ten-year period increasingly does not reflect the actual increases in incomes and rates paid by the systems' users as the census data gets older. In addition, because the target rate is adjusted only once, every ten years, the target rates increase significantly with the new MHI figures.

In order to compensate for the inability to adjust target rates on a more frequent basis, and to lessen the degree to which target rates increase every ten years, the "multiplier" will increase by 2% every two years. In 2004, when CDBG applications were due, MDOC continued to multiply the target percentage times 90% -- but in 2006 the target percentage will be multiplied by 92%, in 2008 by 94%, in 2010 by 96%, and in 2012 by 98%. When new census data is available in 2014 and new target percentages are computed, MDOC will start all over again by multiplying the target percentage times 90% and then again increasing the amount by 2% every two years.

As a result of a comment on the draft guidelines, MDOC decided to maintain some discretion in making this adjustment. Because increasing the multiplier by 2% each cycle could potentially be too aggressive, compared to actual inflation, MDOC will examine the annual income estimates provided by the U.S. Census Bureau. Based on the estimates for the statewide MHI, MDOC may lower the multiplier in any given funding cycle over the next ten years.

EXAMPLES OF TARGET RATE ANALYSIS:
With CDBG Assistance and *Without* CDBG Assistance

The following examples illustrate the target rate concept applied to a hypothetical community.

The "Rivers' Edge Water and Sewer District" which serves 492 households is in violation of the Federal Safe Drinking Water Act because of various contaminants. The District plans to make several improvements to the water storage and distribution system. Residents are already paying $15.25 per month to pay for an existing loan for a previous project to improve their wastewater system, plus operating and maintenance costs of $10 per month for the water and wastewater systems. The District does not have the borrowing capacity to fund the necessary improvements without CDBG assistance and is requesting a CDBG grant in the amount of $500,000. The District's combined target rate is approximately $51.75 per month per household. ($30,000 MHI multiplied by .023, divided by 12 months, and multiplied by .90).

The following assumptions are made for the example below:

- Included in the user rates of the proposed debt are: $15,000 for costs of issuance; 10% debt service reserve; and 25% debt service coverage costs of the annual debt service payment.
- The "Cost of Issuance" includes bond counsel, financial advisor, official statement printing, bond sale advertisement, and bond printing.

EXAMPLE ***WITHOUT*** CDBG ASSISTANCE

Estimated Project Cost	$2,380,000
Cost of Bond Issuance	+$ 15,000
	$2,395,000
Reserve Required	x 1.10
Total Financial Need	$2,634,500

Interest Rate: 5%	
Term: 20 Years	
Base Annual Debt Service:	$208,652
Debt Service Coverage:	x 1.25
Total Annual Debt Service	$260,816

$260,816 / 12 months / 492 users = $44.18 projected monthly user rate increase to finance new water system improvements.

$44.18 projected rate + $15.25 existing debt + $10.00 projected operating and maintenance costs (water and wastewater system) = $69.43 total monthly user rate.

Without a CDBG grant, the combined water and wastewater rates would be $69.43 per month per household, which is considerably above the target rate of $51.75 month per household (134% of target rate). Without a CDBG grant, local residents will pay an additional $111 per household per year. This community clearly needs CDBG assistance to make the project more affordable.

EXAMPLE *WITH* CDBG ASSISTANCE

Estimated Project Cost	$ 2,380,000
CDBG Grant	- $ 500,000
Financing Need	$ 1,880,000
Cost of Bond Issuance	$ 15,000
	$ 1,895,000
Reserve Required	x 1.10
Total Financial Need	$ 2,084,500
Interest Rate: 5%	
Term: 20 years	
Base Annual Debt Service:	$ 165,092
Debt Service Coverage:	x 1.25
Total Annual Debt Service	$ 206,366

$206,366 / 12 months / 492 users = $34.95 projected monthly user rate increase to finance new water system improvements.

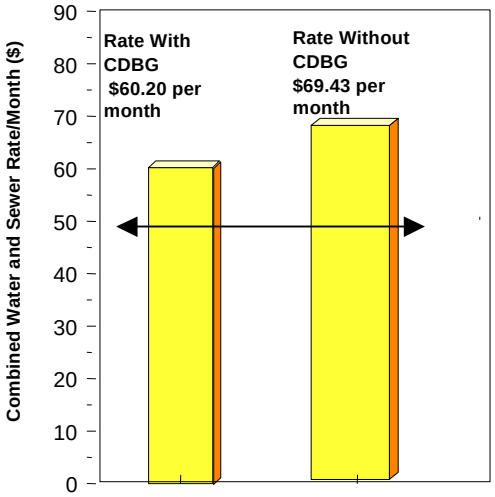
$34.95 projected rate + $15.25 existing debt + $10.00 projected operating and maintenance costs (water and wastewater system) = $60.20 total monthly user rate.

With the CDBG grant, the combined water and wastewater rates would be $60.20 per month per household, which is still above the target rate of $51.75 per month per household (116% of target rate). Therefore, a CDBG grant would be recommended, since this community needs a CDBG grant to keep the project reasonably affordable. A chart on page graphically represents Community A's need for a CDBG grant. Without a CDBG grant, the combined water and wastewater rates would be considerably above the target affordable combined rate, and the project may not be reasonably affordable for local residents to build. Even with the CDBG grant, the combined water and wastewater rates would be above the target rate; however, the project should be more reasonably affordable for local residents.

For comparison, a second community's financial situation is presented on the bottom of the chart on page *I-5*. Community B, which has the same number of system users, current debt and projected O&M as Community A, is planning to do the same project. However, Community B has an MHI of $42,000, which results in a target rate of $72.45. As a result, Community B can complete the project without a CDBG grant, because its combined monthly water and sewer rates upon completion of the proposed project would still be below the target rate. Therefore, a CDBG grant would not be recommended for Community B.

In order to determine whether a proposed project would be recommended for a CDBG grant, a financial analysis must be completed to determine whether the projected user rates, upon completion of the project, would be above or below the target rate. Based on this analysis, applicants should propose a financial package that ensures that their projected user rates are above the target rate, so as to qualify for a CDBG grant.

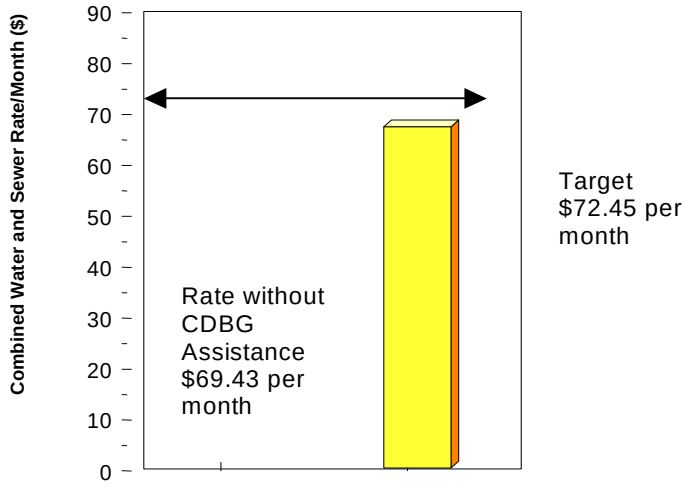
COMMUNITY A



Median Household Income	$30,000
Target	$51.75
Rate with CDBG grant	$60.20
Rate without CDBG grant	$69.43

A CDBG grant is recommended for Community A since it is above the target rate.

COMMUNITY B



Median Household Income	$42,000
Target	$72.45
Rate without CDBG grant	$69.43

A CDBG grant is <u>not</u> recommended for Community B since it is below the target rate.

Calculating "Target Rates" For Districts
And For Small Project Areas Within Cities

Cities, towns and counties, and some county water and sewer districts that have been designated as a Census Designated Place (CDP), have statistics already prepared as part of the process of preparing the census.

For other county water and sewer districts there is no census data currently available and a census study is required.

In addition, some proposed projects only provide improvements to a small portion of the city, and the cost of the project is paid for by those benefiting from the project through special improvement district (SID) assessments on their property. This situation also requires a census study in order to obtain census data for just the project area as compared to using the census data for the entire jurisdiction of the applicant.

Upon request, the CDBG staff will compute the Median Household Income (MHI), Low to Moderate Income (LMI) and Poverty Income statistics for the project area, and compute the target rate for the project area.

Potential applicants will need to provide a map clearly showing the boundaries of the project area along with any other references (such as roads and rivers) that would help to locate the project area on the census maps.

When a census study is required, CDBG will compute the MHI, LMI and Poverty statistics by using data for the smallest geographical census area that encompasses the proposed project area.

However, the CDBG staff sometimes has to use census data that includes statistics for areas outside of the boundaries of the district or project area, because that is the smallest geographical area delineated by the U.S. Census Bureau to obtain the data. The inclusion of these additional households from outside of the boundaries of the project area can sometimes adversely affect the income data, and more importantly, elevate the target rate.

In order to eliminate these additional households from the target rate computation, **applicants are allowed to conduct an income survey in order to establish more accurate income figures. See Appendix D of CDBG's handbook, *Documenting Benefit to Low and Moderate Income Persons* for more information on conducting an income study.**

Communities That Have Undergone
Dramatic Demographic Or Economic Changes

Some communities may have undergone dramatic demographic or economic changes since the 2000 Census information was obtained.

A major industry, such as a lumber mill or a mine, may have closed. In a small community the mill or the mine may have been the major employer. The impact of the closing may have resulted in dramatic economic changes for the community. It would mean a loss of jobs, which are typically higher paying jobs, potentially a loss of population as families move to find new jobs, and probably less spending in the retail and service sectors of the local economy.

The combined effect of these changes may have resulted in a significantly lower median household income, a higher percentage of low to moderate-income households, and higher percentage of poverty households.

Under these conditions, an applicant may conduct an income survey in order to establish more current income figures. See Appendix D of *Documenting Benefit to Low and Moderate Income Persons* for more information on conducting an income survey.

DIRECTIONS FOR APPLICANTS:

Because of **the importance of "target rate analysis"** in the ranking of CDBG applications for water, wastewater and solid waste projects, **applicants should contact the CDBG staff in order to have their target rates calculated or verified in order to ensure that the correct target rate is being used.**

If the proposed user rates would be below the target rate, after preparing a preliminary financial package to construct the proposed project, applicants should discuss their proposed projects with MDOC staff. **Grant funding will not be recommended for projects that would result in user charges below the target rate.**

To obtain the specific census data and target rates, for Census Designated Places (cities and towns, county water and sewer districts, and counties), using the Internet, go to:

http://comdev.mt.gov/Census_Search.asp

If you do not have access to the Internet,
the CDBG staff can provide the information by calling 841-2791.